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**DATE:** May 10, 1991 **REF:** RFEV24-SAG-EGRF-T-068  
**TO:** Craig Cowdery **LOCATION:** EG&G RF  
**FROM:** L. McInroy/P. Ralphs **LOCATION:** SAIC/Golden  
**SUBJECT:** Development of Sample Preparation Procedure(s) for the Operable Unit No. 1 (OU-1), Bench-Scale Treatability Study

In preparing the Quality Assurance Addendum (QAA) for the OU-1 Bench-Scale Treatability Study it was evident that a procedure (or procedures) is needed for use in the field that provides instructions for the following actions:

- Compositing the OU-1 groundwater samples into a single sample (minimum volume of 19 gallons); and handling, packaging, and transporting this composite sample to the testing contractor's laboratory for bench-scale testing.
- Drawing the two 1-gallon field sample aliquots from the composite sample prior to transporting the composite sample to an EG&G contract analytical laboratory for pretreatment characterization.

This procedure(s) should address the type of sample container, sample volumes, and preservation requirements for the composite sample and the field sample.

The QAA for the OU-1 Bench-Scale Treatability Study currently references existing ER Program SOPs 1.13, Containerizing, Preserving, Handling, and Shipping of Soil and Water Samples and 2.6, Groundwater Sampling for these actions. Based on our review

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*Providing Waste Management Services for EG&G Rocky Flats, Inc*

14062 Denver West Parkway, Suite 255, Golden, Colorado 80401 (303) 279-7242 Fax: (303) 279-5525  
Other SAIC Offices: Albuquerque, Boston, Dayton, Huntsville, Las Vegas, Los Angeles, McLean, Oak Ridge, Orlando, Palo Alto, Seattle, Tucson

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of these SOPs and our understanding of the OU-1 Bench-Scale Treatability Study, we do not believe the above actions are adequately addressed in existing procedures to provide field sampling crews with adequate instructions for completing the necessary sample preparation.

We also suggest that an additional procedure(s) be developed describing how the testing contractor (Peroxidation Systems, Inc.) will collect and prepare pretreatment analytical screening samples and post-treatment samples. This proposed procedure(s) should address collection and handling requirements for all post-treatment samples; as well as packaging, transportation, and chain-of-custody requirements for the samples collected following the confirmation test run, which will be shipped to EG&G contract laboratories for analysis.

We realize that this process will be provided by the testing contractor (PSI), and that the contract does not require development of specific procedures for this sample collection and handling process. We have attempted to address this process in the QAA; however, we believe that control of this process would be better achieved if a procedure(s) were developed.

If you have any questions regarding this matter, please contact us at 279-7242.

cc: E. Evered  
T. Greengard  
M. Brooks  
O. Erlich